In the Specification:

Please **replace** the paragraph at **page 1, lines 5 to 8,** with a replacement paragraph amended as follows:

The present invention relates to a cutting tool comprising a coating film on a base surface. More particularly, it relates to a surface-coated cutting tool having excellent wear resistance, excellent [[~~in~~]] fracture resistance and excellent chipping resistance, and being capable of improving cutting performance.

Please **replace** the paragraph at **page 1, lines 10 to 13,** with a replacement paragraph amended as follows:

In general, a tool comprising a coating film of a nitride or a carbonitride of AlTiSi on a base surface of WC-based cemented carbide, cermet or high-speed steel in order to improve wear resistance and provide a surface protecting function is known as a cutting tool or a wear-resistant tool (refer to patent ~~literature 1,~~ document 1 identified below, for example).

Please **replace** the paragraph at **page 1, lines 14 to 16,** with a replacement paragraph amended as follows:

In response to the recent trends described below, however, the cutting edge temperature of a tool tends to increasingly rise in cutting, and characteristics required [[~~to~~]] of tool materials are ~~getting severer.~~ becoming more severe. For example,

Please **replace** the paragraph at **page 1, line 22 to page 2, line 4,** with a replacement paragraph amended as follows:

In this regard, patent ~~literature 2,~~ <u>document 2 identified below,</u> for example, discloses that the performance of a cutting tool is improved also in dry high-speed cutting by providing a TiN film immediately on a base while providing a TiAlN film thereon and further providing a TiSiN film thereon. According to this patent, ~~solving~~ <u>it is possible to solve</u> such a problem that intra-film diffusion of oxygen can be suppressed due to an alumina layer formed by oxidation of a film surface during cutting when a TiAl compound film is provided as a coating film, while the alumina layer is so easily separated by a porous Ti oxide layer formed immediately under the alumina layer upon dynamic cutting that <u>the</u> progress of oxidation cannot be sufficiently prevented in general, the aforementioned porous Ti oxide layer is not formed but improvement of performance is attained by providing a <u>dense</u> TiSi compound film having extremely high oxidation resistance ~~with denseness~~ on the film surface.

Please **replace** the paragraph at **page 2, line 6,** with a replacement paragraph amended as follows:

~~Non Patent Document 1:~~ <u>Patent Document 2:</u> Japanese Patent Laying-Open No. 2000-326108

Please **replace** the paragraph at **page 2, lines 15 to 20,** with a replacement paragraph amended as follows:

Fig. 1 is a schematic sectional view showing the structure of a typical cutting edge of a cutting tool. In a base 10, the cutting edge is generally constituted of a flank 11 and a rake face 12 as shown in Fig. 1, and the angle α formed by the flank 11 and the rake face 12 is acute or right in most cases. When a coating film 20 is formed on the cutting edge of this shape, the thickness c of the forward end of the cutting edge ~~enlarges~~ <u>is enlarged</u> as compared with the thicknesses a and b of the flank 11 and the rake face [[~~12~~]] <u>12.</u>

Please **replace** the paragraph at **page 2, line 27 to page 3, line 8,** with a replacement paragraph amended as follows:

However, the inventors have detailedly investigated the worn state of the cutting tool, to find that the wear did not progress as shown in the above Figs. 2A to 2C but not only the coating film 20 but also the forward end of the cutting edge of the base 10 already disappeared in initial cutting as shown in Fig. 3 to expose the base 10, which has been recognized as being fractured from its configuration. Further, it has also been recognized that an exposed portion 13 was already oxidized in the base 10. Thus, it is conceivably difficult to remarkably improve the tool life due to the exposure of the base in initial cutting, despite the coating film having excellent oxidation resistance described in the aforementioned patent

~~literature~~ document 2. Fig. 3 is a schematic sectional view showing a chipped state of the cutting tool.

Please **replace** the paragraph at **page 4, lines 4 to 5,** with a replacement paragraph amended as follows:

Preferably, the hard layer is composed of a compound selected from a nitride, a carbonitride, an oxynitride and a carboxynitride of Ti, Al and [[~~S.~~]] Si.

Please **replace** the paragraph at **page 4, lines 6 to 8,** with a replacement paragraph amended as follows:

Preferably, the hard layer is composed of a compound selected from a nitride, a carbonitride, an oxynitride and a carboxynitride of $(Ti_{1-x-y}Al_xSi_y)$ $(0 \leq x \leq 0.7, 0 \leq y \leq 0.2)$.

Please **replace** the paragraph at **page 4, lines 20 to 23,** with a replacement paragraph amended as follows:

Preferably, the base is constituted of any of ~~WC-based~~ cemented carbide comprising WC, cermet, high-speed steel, ceramics, a cubic boron nitride sintered body, a diamond sintered body, a silicon nitride sintered body and a sintered body containing aluminum oxide and titanium carbide.

Please **replace** the paragraph at **page 20, lines 10 to 27**, with a replacement paragraph amended as follows:

The samples 1 to 34, 51 and 52 comprising the coating films on the bases were prepared through the aforementioned steps. Table 1 shows the types and thicknesses of the coating films of the respective samples. The compositions of compounds shown in Table 1, confirmed by XPS (X-ray photoelectron spectroscopy) in this Example, can alternatively be confirmed also by microarea EDX (energy dispersive X-ray spectroscopy) analysis provided on a transmission electron microscope or SIMS (secondary ion mass spectrometry). Hardness levels of hard layers were measured by nanoindentation. Table 2 shows measured hardness levels, maximum indentation depths hmax and elastic recovery values (hmax - hf)/hmax (where hf represents dent depth remaining after unloading). Hardness measurement according to nanoindentation was performed by controlling an indentation load so that the indentation depth of an indenter was not more than 1/10 of the film thickness with respect to each hard layer. This measurement was performed with a nano-indenter (Nano Indenter XP by MTS). While all of the samples 1 to 32 exhibited fine structures with average particle diameters of 2 to 100 nm when the crystal grain sizes thereof were investigated through TEM observation, the samples 51 and 52 exhibited average particle diameters of 200 to 500 nm. In particular, the hard layers containing Si exhibited smaller

values among the aforementioned average particle diameters, and had fine acicular structures.

Please **replace the heading in the third column of Table 4 on page 24,** as follows:

~~Continuous Cutting~~ Interrupted Cutting

Please **replace** the paragraph at **page 25, lines 20 to 28,** with a replacement paragraph amended as follows:

Further samples were prepared by applying intermediate layers and hard layers similarly to the aforementioned samples 1 to 34 and thereafter forming outermost layers of any of TiC, TiCN, TiSiCN and TiAlCN, and the further samples were subjected to a dry continuous cutting test and an interrupted cutting test under the conditions shown in Table 3. The outermost layers were formed ~~through~~ using a cathode arc ion plating apparatus similarly to the above (thickness: 0.5 μm). In this case, seizure was hardly caused in each sample. Thus, it has been recognized that it is possible to further [[~~the~~]] reduce the cutting resistance and improve ~~long livedness~~ the long-life durability of the tool when providing a film of any of the aforementioned carbides or carbonitrides as the outermost layer.

Please **replace** the paragraph at **page 26, lines 8 to 12**, with a replacement paragraph amended as follows:

The cutting conditions were a cutting speed of 90 m/min., a feed rate of 0.2 mm/rev., employment of no coolant (using air blow) and blind hole cutting of 24 mm in depth. The tool life of each sample was determined when the dimensional accuracy of a workpiece was out of a defined range and evaluated with the number of holes formed before the end of the life. Table 5 shows the results.

[RESPONSE CONTINUES ON NEXT PAGE]